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KASHNIKOW, ERIK				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary**Application No.**

10/543,077

Applicant(s)DAMBRICOURT, GERY BERNARD
MARIE CORNIL**Examiner**

ERIK KASHNIKOV

Art Unit

1794

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 July 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 37-81 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 37-81 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07/21/2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 07/21/2005
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Specification

1. The use of the trademarks AFFINITY™ and EXACT™ has been noted in this application. It should be capitalized wherever it appears and be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

Drawings

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "32" has been used to designate both flows of materials and sectors. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

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3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: **17**. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Double Patenting

4. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to

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be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

5. Claims 37-45, 48, 52, 58-59 and 66-81 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 32-39, 53, 56-69 and 72-73 of copending Application No. 10/542,935. Although the conflicting claims are not identical, they are not patentably distinct from each other because the physical property taught by the equation present in the instant application would either be inherent or obvious for one of ordinary skill in the art to optimize. The case for inherency and motivation and optimization are discussed further in the rejections below (see paragraph 34 of this office action).

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 37-79 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

8. A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since

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the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. See MPEP § 2173.05(c). Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, claim 1 recites the broad recitation "no more than 3", and the claim also recites 2.2 and no more than 2 and 1.5 which is the narrower statement of the range/limitation.

9. Claims 66-69 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 66-69 contain two different angles both labeled as (\square) this makes it unclear as to what applicant is claiming.

10. Claim 70 recites the limitation "angle (δ)" in the first line of the claim. There is insufficient antecedent basis for this limitation in the claim.

11. Claim 45 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 45 appears to be a typo. Claim 45 gives units of flexural modulus as %, whereas the accepted units for flexural modulus are units of

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pressure and not %. In order to further prosecution Examiner will treat the claim as reading "wherein the at least one second polymer is contained in the mixture to a proportion of 25-75%".

12. Claims 49 and 55 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Examiner suspects Applicant wants the melt flow index of the second polymer to be between the range stated in claim 49 and below the number indicated in claim 55, and not the tube, and to further prosecution Examiner will treat the claims as such.

13. Claims 72 and 78 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In the instant case the scope of the claim is confusing because it is not clear how the tip would place the wall of the reducer under centrifugal radial tension.

Claim Rejections - 35 USC § 103

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

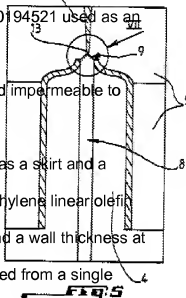
(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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15. Claims 37-63, 65-71, 76 and 80-81 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dambricourt (WO/2001/068355 with US 2003/0194521 used as an English translation) in view of Johnson et al. (US 5,314,746).

16. Dambricourt teaches a tube resistant to stress cracking and impermeable to water vapor (paragraph 0001).

17. In regards to claim 37 Dambricourt teaches a tube which has a skirt and a distribution head, wherein the walls are made from at least one ethylene linear olefin copolymers which has a melt flow index of between 3-10g/min, and a wall thickness at mid height of between 0.30 and 1.00mm and that the tube is formed from a single operation, which would produce a single piece assembly (claim 1).



18. In regards to claim 43 Dambricourt teaches that multiple copolymers can be used to form the wall of their tube (claims 17 and 18).

19. In regards to claims 44 - 47 Dambricourt teaches that the second polymer can be present between 33 and 67% by weight with respect to the first polymer (claim 18).

20. In regards to claims 48-50 Dambricourt teaches that the second polymer can be ethylene-octene copolymer and have a melt flow index of 3-4 g/10mins (claim 19).

21. In regards to claims 56 and 57 Dambricourt teaches that the tube can have lengths of 40-200mm inclusive (paragraph 0008).

22. In regards to claim 58 Dambricourt teaches that the tube be formed by injecting the polymers into a mold cavity which has a mold insert which contains a central part which has a free upper end and is centered on the tube (paragraph 0011). In regards to the requirement that the impression bears a resemblance to the tube skirt, while

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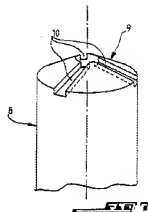
Dambricourt is silent regarding this the pictures shown by

Dambricourt show the same features as the pictures shown by

Applicant (Fig 5 Dambricourt (top) Fig 5 applicant (bottom).

23. In regards to claim 59 Dambricourt teaches using feed channels for the injection molding (paragraph 0122).

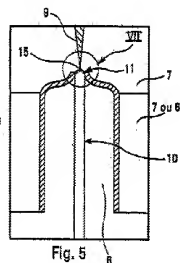
Dambricourt also shows in the feed or supply channels forming an apex wall (Figure 7).



24. In regards to claims 60 and 61 Dambricourt teaches that feed channels form at least 15% of the upper part of the head (paragraph 0122) and at least 25% (paragraph 0123).

25. In regards to claim 62 Dambricourt teaches that the channels increase in width from the injection point to the edges (paragraph 0124).

26. In regards to claim 63 Dambricourt teaches that the tubes have a zone of narrowing or a throttle zone located below the evacuation point (paragraph 0125).



27. In regards to claim 65 Dambricourt teaches that the central part of the injection core be mobile (paragraph 0016). Dambricourt also teaches that the mobile part can be pulled back a set distance to form the upper wall in a single piece (paragraph 0016).

Since all other limitations have been taught by Dambricourt it would have been well with in the ability of one of ordinary skill in the art at the time of the invention to form the apex wall.

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28. In regards to claims 66-70 Dambricourt teaches a sunken cone at the evacuation orifice (paragraph 0012) they are silent regarding the specific angles and projecting cone frustums. However it is examiners opinion that this is an obvious design choice, because it allows for controlled evacuation of the contents of the tube, and it is well with in the abilities of one of ordinary skill in the art at the time of the invention.

29. In regards to claim 71 Examiner is treating it as a product by process, for information on product by process see MPEP 2113. In regards to claims 71 and 76 Dambricourt teaches a nozzle (a cavity through which the material is led into or out of the tube (paragraph 0111)) as is shown in figure 5 above. One of ordinary skill in the art at the time of the invention would recognize the area with the narrowing of the tube within the circle as a nozzle. Dambricourt also teaches that a reducer can be incorporated into the tube (paragraph 0129).

30. In regards to claim 80 Dambricourt teaches that the tube in claim 37 be formed with a method utilizing a single injection mould comprising an impression and a core (paragraphs 0109-0113).

31. While Dambricourt teaches the above stated tube and method of forming the tube, they remain silent regarding the use of polypropylene.

32. Johnson et al. teach a polyolefin films which can be comprised of copolymers of propylene and ethylene (column 2 lines 3-5).

33. In regards to claim 37, 38, 39, 42 and 81 Johnson et al. teach that the copolymers of polypropylene and polyethylene have a flexural modulus of 137.9-689.5 MPa (column 8 lines 16-20).

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34. In regards to claim 37, absent a showing of criticality with respect to "the dispersion factor Kd" (a result effective variable), it would have been obvious to a person of ordinary skill in the art at the time of the invention to adjust the "flexural of the polymers" through routine experimentation in order to achieve "an optimal rigidity" and arrive at dispersion factor Kd including that presently claimed. It has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

35. In regards to claim 40 Johnson et al teach that polypropylene ethylene copolymer be semi-crystalline, or heterophase (column 3 lines 1-2).

36. In regards to claim 41 the preceding paragraphs have dealt with embodiments of the invention which contain solely the polypropylene ethylene copolymer, which as stated above has a flexural modulus lower than 850 MPa.

37. In regards to claim 44 and 46 Johnson et al. teach the first polymer (polypropylene and polyethylene copolymer) and Dambricourt as stated above teach the use of ethylene octene copolymer, as well as concentrations within the range specified by Applicant, therefore all limitation of the embodiment in claim 50 are met, and the physical property (in this case flexural modulus would be inherent).

38. In regards to claim 51 Johnson et al. teach the mixing of a polypropylene polyethylene copolymer with polypropylene (column 13 lines 15-20).

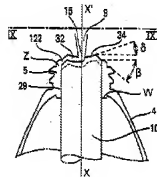
39. In regards to claim 52 while Johnson et al. is silent regarding mixing the polypropylene polyethylene copolymer with another polypropylene polyethylene copolymer, Dambricourt teaches using copolymers of the same materials as a mixture

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for the tubes in their invention. One of ordinary skill in the art would be motivated to use the same materials because it can form a tube with improved flexibility (paragraph 0017). Therefore it would of been obvious and well within the abilities of one of ordinary skill in the art at the time of the invention to use slightly different polypropylene and polyethylene copolymers in the forming of the tube.

40. In regards to claim 53 the capacity of the tube would have been a design choice, and it would have been well within the abilities of one of ordinary skill in the art at the time of the invention to take a polymer, with the flexural modulus taught above and form a tube with a 30ml capacity.

41. In regards to claims 54 and 55 Johnson et al. teach that the copolymer of their invention has a Melt Flow Index of 0.01-500dg/min (column 2 line 19).



42. One of ordinary skill in the art at the time of the invention would be motivated to modify the film of Johnson et al. with the tube of Dambricourt because the tube of Dambricourt which offers improved resistant to stress cracking and is impermeable to water vapor (paragraph 0007) would benefit from the high puncture and tear resistant films of Johnson et al. (column 1 lines 7-10).

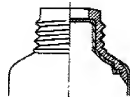
43. Claims 64, 77, and 79 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dambricourt (WO/2001/068355 with US 2003/0194521 used as an English translation) in view of Johnson et al. (US 5,314,746) as applied to claim 58 and in further view of Nishikawa (US 5,372,863).

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44. While Dambricourt and Johnson et al. teach the tube and method for forming the tube as shown above, they are silent regarding a ring of material perpendicular to the axial direction under the neck.

FIG. 3
PRIOR ART

45. Nishikawa teaches a laminate tube container to be used for toothpaste (column 1 lines 10-12).



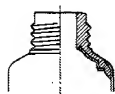
46. In regards to claim 64 Nishikawa shows a view of a conventional laminate figure, which includes a ring of material similar to applicants under the neck (See figure 2 of the prior art compared to figure 9 of Applicant).

47. Also in regards to claims 77 and 79 Nishikawa shows another conventional embodiment which has the chimney feature described by Applicant (Figure 3).

48. Since the two inventions are drawn to analogous art one of ordinary skill in the art would be well aware of this conventional top and would it would be well within the abilities of one of ordinary skill in the art at the time of the invention to include it in their tube if they so desired.

FIG. 2
PRIOR ART

49. Claims 73-75 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dambricourt (WO/2001/068355 with US 2003/0194521 used as an English translation) in view of Johnson et al. (US 5,314,746) in further view of Doherty et al. (WO/2001/094213).



50. While Dambricourt and Johnson et al. teach the tube and method for forming the tube as shown above, they are silent regarding the cap incorporated onto the tube.

51. Doherty et al. teach a dispensing apparatus with a reusable break off cap (page 1 lines 8-13).
52. In regards to claim 73 Doherty et al. teach that the dispenser and nozzle are molded as a single piece (claim 19).
53. In regards to claim 74 and 75 Doherty et al teach that the cap can be reattached by means of a asymmetric threads as seen in figure 18 (threads are labeled 70 see also page 19 lines 16-18).
54. One of ordinary skill in the art at the time of the invention would be motivated to modify the tube of Dambricourt and Johnson et al. with the tubes of Doherty et al. because the tubes of Dambricourt and Johnson et al. which are resistant stress cracking and impermeability to water vapor (paragraph 0007) would benefit from the nozzle of Doherty et al. because the tubes provides a low cost multi use container that can be used with environmentally sensitive products (column 2 line 66– column 3 line 2).

Conclusion

55. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Pitkanen et al. (US 6,342,564) adds additional information regarding heterophase polypropylene and polypropylene ethylene copolymers.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ERIK KASHNIKOW whose telephone number is

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(571)270-3475. The examiner can normally be reached on Monday-Friday 7:30-5:00PM EST (First Friday off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Callie Shosho can be reached on (571) 272-1123. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Erik Kashnikov
Examiner
Art Unit 1794

/Callie E. Shosho/
Supervisory Patent Examiner, Art Unit 1794